Arizona Health-e Connection:

A Brief History and Status of Health Information Sharing in Arizona

Nevada Health Information Technology
Blue Ribbon Taskforce
January 8, 2010

Brad Tritle, CIPP, CPHIT
Executive Director, AzHeC
www.azhec.org

Agenda

- Intro / Direction
- Brief History
- Roadmap / Organization
- HIE Projects
- Health Record Banking / Multi-State HIE / Hospital-based Sharing
- Patient Identification
- Today

Disclaimer

- Any opinions or editorial statements provided during this presentation are those of the speaker alone.
- They do not necessarily represent the official opinion of Arizona Health-e Connection, its Board of Directors, Staff, or Members.

Reasons to be Proud of our Innovation and Efficiency

- USA produces
  - 70% of Nobel Laureates*
  - 80 of the 100 most important inventions of the 20th Century*
  - 1/3 of the world's wealth with 5% of the population*

*Dr. Barry Asmus, *A Tribute to America*

Healthcare Wins

– Better five-year cancer survival rates*
  - 66% for US men vs 47% for European men
  - 63% for US women vs 56% for European women

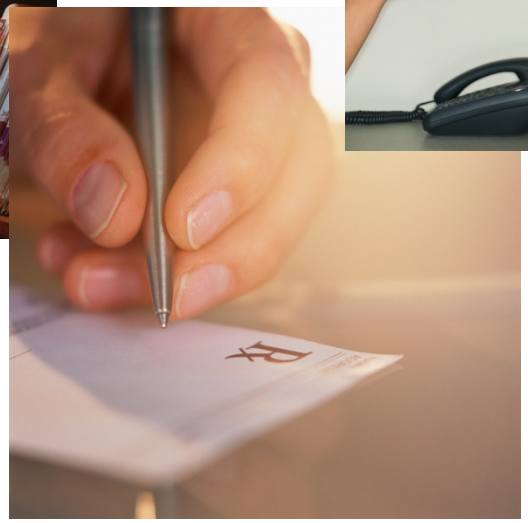
*Lancet Oncology

– Decreased US death rates from heart attacks*
  - 307 per 100,000 in 1950
  - 126 per 100,000 in 2000

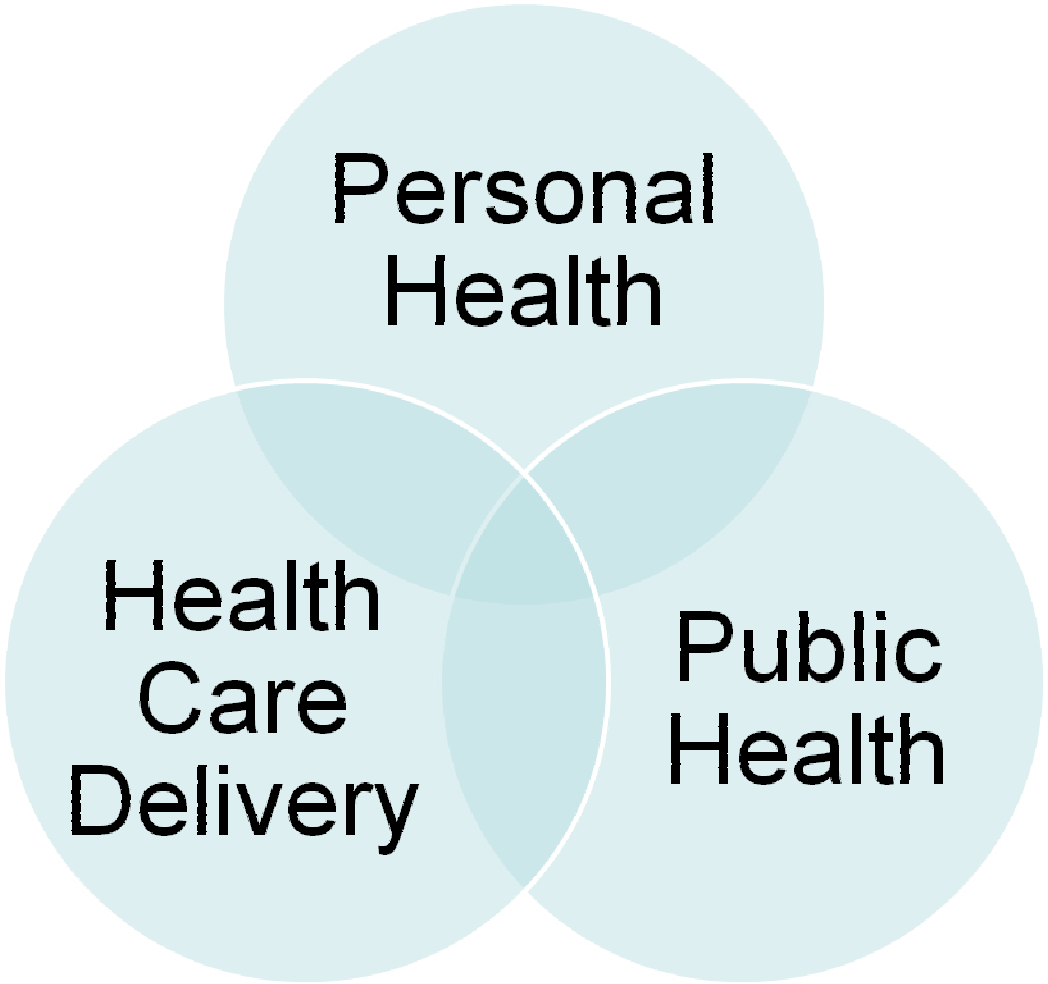
*American Heart Assn.

– People come from all over the world for specific medical treatments in the U.S.

Health Care Information: Still an early 20th Century Infrastructure?

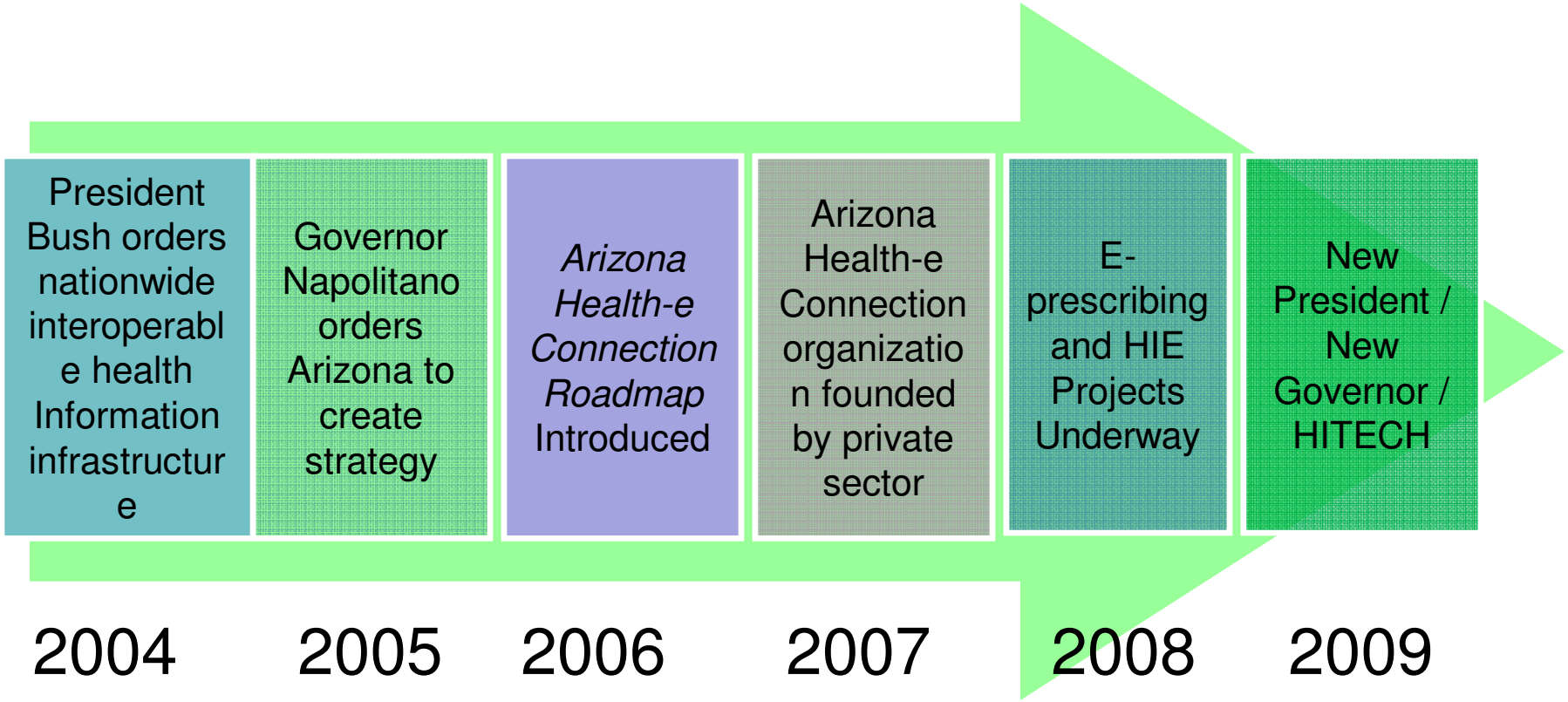


Solution: A Health Information Infrastructure



http://aspe.hhs.gov/sp/NHII/FAQ.html

Federal and State (AZ) Efforts



HIE under 2006 Roadmap

- Fundamental Concept of Medical Trading Area (Regionally)-based Health Information Exchange (e.g., Greater Phoenix, Greater Tucson)
- Statewide infrastructure only as necessary to support regional efforts
- Followed HIE direction popular at the time (e.g., Dr. Brailer network-of-networks-based NHIN)

AzHeC Governance Structure and Strategic Direction

Permanent

- Governor's Office
- AHCCCS
- ADHS
- AzHHA
- ArMA
- AOMA
- GITA

Arizona Health-e Connection Board

Additional

- Health Plans/Insurers
- Employers
- Hospitals
- Pharmacy
- Clinical Labs
- Higher Education
- Medical Trading Areas
- At-Large Seats

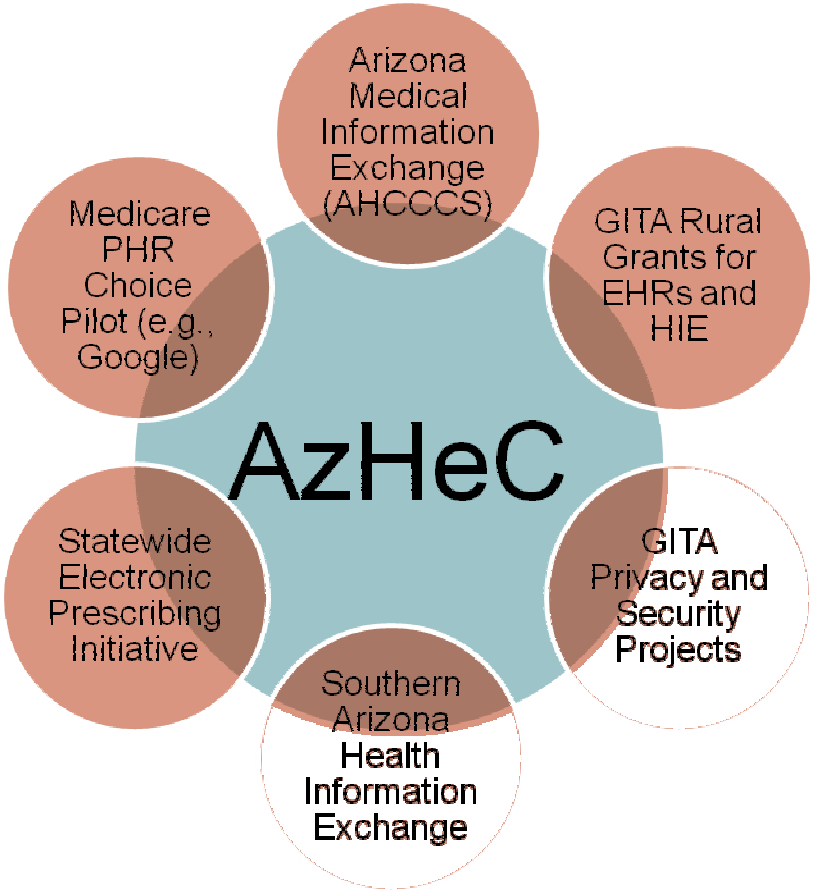
AzHeC Executive Director and Staff

Education	Policy Development	Support Infrastructure Development

Fall 2007

- Sept – Tritle joins as Exec. Director
- Board members express concerns over "failed" RHIOs; e.g., Santa Barbara
- Tritle expresses nationally need for greater transparency, objective RHIO analysis and sharing of lessons learned (e.g., HIMSS Virtual Keynote)
- Dr. Yasnoff shares perspective on HIEs and Health Record Banking with Arizona

Arizona HIT/HIE Initiatives



Major AZ HIE Efforts

- Southern AZ HIE (SAHIE)
  - Community led; pay-as-you go from stakeholders; business plan-focus; traditional vendors vetted; Wellogic selected
- Medicaid Agency (AHCCCS) Medicaid Transformation Grant (AMIE)
  - Phase 1 - $11.7M; Phase 2 -additional $4M+
  - Top-down; no business plan; grant funded; open source software (develop own); viewer

Major AZ HIE Status

- Southern AZ HIE (SAHIE)
  - Non-profit formed; vendor contract signed; securing funding; now exploring merger with AMIE; not yet operational (5 years in development)
- Medicaid Agency (AHCCCS) Medicaid Transformation Grant (AMIE)
  - Non-profit formed; Pilot from Sept '08; millions of patients' records available; ceased operations December '09 due to funding

Strengths of Federated HIE

- "Keeping" and controlling data under institution's stewardship is attractive both legally, and commercially
- Can efficiently present limited data sets (e.g., discharge summaries) from a limited set of data providers
- Many vendors available
- Full employment for legal profession (data sharing agreements)

Weaknesses of Federated HIE

- Reliability based on too many points of failure
  - Small providers cannot provide 24/7 uptime
  - Completeness of data based on “weakest link”
- Inability to collect/share complete record
- Lack of sustainable business models
- Lack of incentive to share data/participate
- Numerous legal issues and work
- Ease of HIEs “crumbling” (value decrease) if major data provider pulls out

Weaknesses of Federated HIE, cont'd

- Cannot leverage economies of scale found in centralized architecture
- Maintaining high security standards difficult with numerous data provision/access points
- Patient identification based on EMPIs (unless results delivery only), with 4% to 8% false positives
- Population health studies and research near impossible (does not lay a foundation for achieving this)

Other strategies: Health Record Banking (strengths)

- Can centralize and secure data in Tier IV data center (composed of multiple active power and cooling distribution paths, has redundant components, and is fault tolerant, providing 99.995% availability; Uptime Institute)
- Legal barriers greatly lessened with consumer in control of data (works with HIPAA)
- Centralized infrastructure produces economies of scale
- Foundation for more businesses, services (e.g., home monitoring), innovation

Other strategies: Health Record Banking (strengths)

- Record is created prior to demand for it (as opposed to “on the fly” of federated HIE), thus able to be reviewed, edited, annotated, supplemented, etc.
- Information can be shared with whomever consumer wishes, and not dependent on HIE’s authenticated users*
- Capability to ensure high level of privacy

*typically limited to allopathic providers , and does not include family, caregivers, dieticians, alternative care providers, etc.

Other strategies: Health Record Banking (strengths)

- Market research showing great interest by consumers, willingness to pay for accounts
- The only solution for provision of access to complete records at the point of care
- If accounts maintained, records will not be archived, or destroyed (available for family history)
- Support of think tanks representing both Right (Heritage Foundation) and Left (Progressive Policy Institute), and Privacy Advocates

Other strategies: Health Record Banking (strengths)

- Consumer can be identified by account number, similar to existing banking records (no need for EMPI)
- Potential to implement debit card-like authorization to view/update records, instead of Master Patient Index use, which results in significant differences in security (most identify fraud is due to overuse of existing identifiers, such as SS#)
- Business plans vary; may be funded by patients

Other strategies: Health Record Banking (strengths)

- Consumers may authorize use of data for research, clinical trials, in return for credit or payment
- Infrastructure conducive to research, population health studies, disease surveillance (with consent)

- Consumer Preferences
  - 91% say patients should have access to their own electronic records
    - 11/2007 Wall Street Journal Online/Harris Interactive Poll
  - 96% think it's important to access all of their medical records to manage their health
    - 12/2006 Markle Survey
  - AzHeC to release positive results of consumer focus groups

Other strategies: Health Record Banking (weakness)

- New industry; Not yet proven (in pure form)
- Business model not yet proven (though advantages over traditional HIE)
- A target for negative opinions by those wishing to maintain paternalistic (non-consumer centric) medicine
- Needs community support (same for any HIE or information sharing)
- Due to opt-in, may require more consumer marketing and education
- Need to develop nationwide bank network (eventually)

Other strategies: Multi-state HIE

- National Coalition for Health Integration (NCHI) co-hosting multi-state Summits with Mayo Clinic
  - 10 states
  - Interest in sharing economies of scale
  - Interest in sharing data across state lines
  - Need for common privacy practices
  - AzHeC has ad hoc committee reviewing

  www.nchiconnect.org

Other strategies: Multi-state HIE

- National Health Information Network – Connect Software (open source)
  - Could be maintained by multiple states
  - Supported and maintained also by Federal government
  - Possible upgrading of functionality in 2010, based on stakeholder input
  - ONC indicates some states considering use as state HIE software
  - Ensures CMS, SSA, DoD, VA functionality (?)

Other strategies: Hospital-based

- Hospital Systems may deploy info sharing platforms to communicate with providers and patients
  - Paid for by hospitals
  - Scottsdale Healthcare – RelayHealth
  - Catholic Healthcare West – MobileMDs
  - Kingman Regional?, Yuma Regional?
  - Vendors or hospitals may connect directly to NHIN or with others

Patient Identification

- Existing HIE projects use/plan for EMPI
- According to multiple experts, best-of-breed probabilistic Master Patient Indices (MPI/EMPI) may still have 4 to 8% false positives (automated), and require manual intervention
- Who does the manual intervention? Provider without right to view records? HIE?

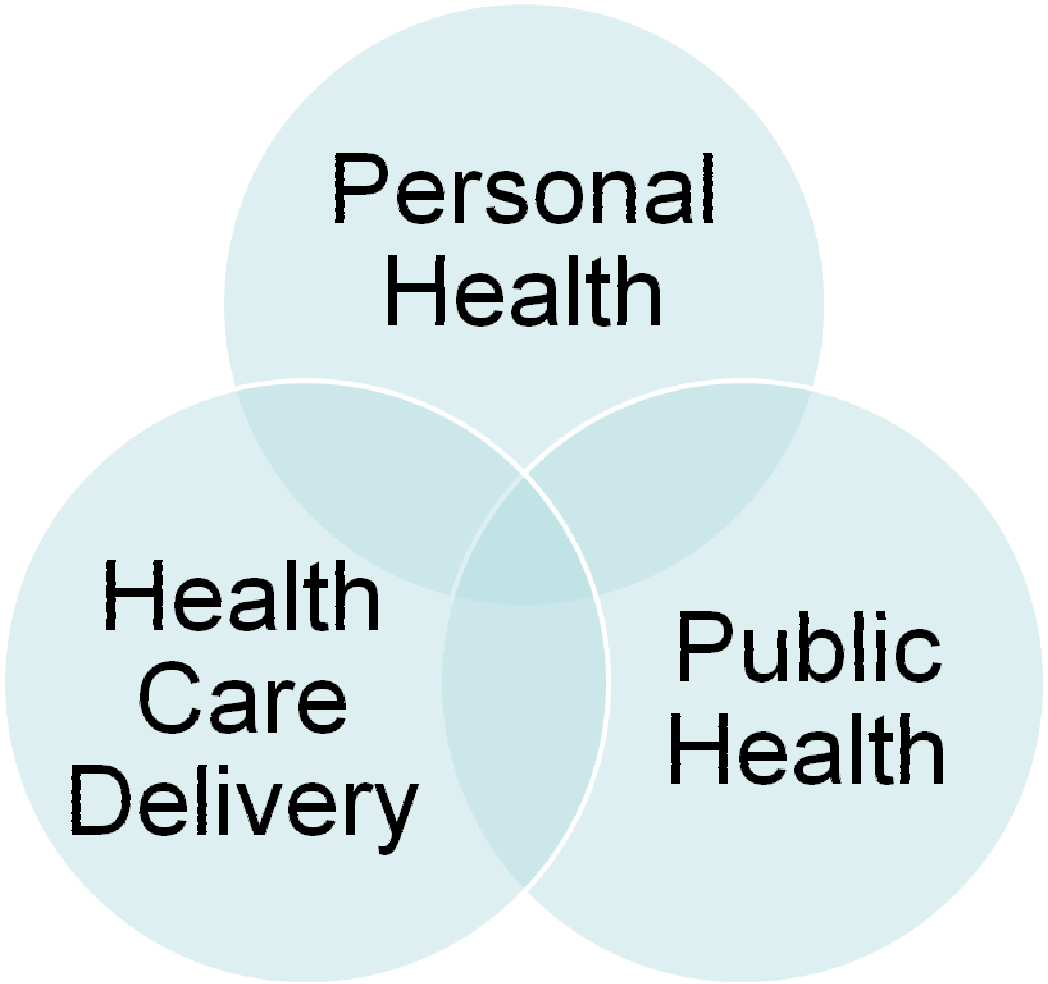
Patient Identification, cont'd

- Due to overuse of existing identifiers, such as SS#, resulting in identify theft (and medical identity theft), AUTHORIZATION should be explored as an alternative to IDENTIFICATION
- Authorization can be bank card-like (e.g., debit, with PIN), and/or biometrics (e.g., iris, fingerprint, palm vein)

Rural Considerations

- Rural Assumptions: Less than ideal broadband availability; small physician practices; electrical brownouts rare, but may occur.
- If assumptions true, then:
  - Centralized repository with redundant Internet and power (e.g., Las Vegas, LA, Phx) provides best reliability option (as opposed to federated)
  - Recommend rural broadband be a limit only in accessing an “already assembled record,” as opposed to a link in the network required to populate a “virtual record” for viewing elsewhere

Solution: A Health Information Infrastructure



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Current Status

- Private enterprise poised to launch Phoenix Health Record Bank
- Major HIE efforts considering merger
- Participating in NCHI/Mayo meetings; ad hoc committee reviewing direction
- AzHeC will lead development of state HIE Strategic and Operational Plans; strong desire for transparency and unbiased process; no guarantee existing projects will continue.

Arizona's Point of Coordination

www.azhec.org

www.azhecblog.org

Brad Tritle, CIPP, CPHIT
Executive Director
602 288 5130 / brad.tritle@azhec.org